Can't See the Tacking for the Trees? Try a Coasian Solution

Beaulier, Scott and Mixon, Franklin and Cebula, Richard

Troy University, Columbus State University, Jacksonville University

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Scott A Beaulier†, *Franklin G. Mixon, Jr.*‡ and *Richard J. Cebula**

1. Introduction

The use of movies, television, music, literature, and other aspects of (popular) culture has taken on a greater emphasis in recent years regarding the teaching of economics principles. Mateer (2004 and 2009), Sexton (2006), Mateer and Li (2008), Mixon (2010), and Mateer and Stephenson (2011) offer resources for integrating films and movies into economics instruction. Use of television clips and shows, as explained in Mixon (2001), Sexton (2006), Ghent, Grant and Lesica (2010), Luccasson and Thomas (2010), and Mateer, Ghent and Stone (2011), is the most expansive stem of this particular branch of economic education. In terms of music, Lawson, Hall and Mateer (2008) and Hall and Lawson (2008) represent seminal pieces instructing economics instructors on how to incorporate music into the economics classroom. The use of literature, as exemplified by Watts (2003), is one of the oldest forms of imparting economics principles to business and economics students. Finally, Lawson (2006), Kjar (2009), and Mateer (2011) offer examples of how to use comic strips, video games, and YouTube videos to, along with the other tools mentioned above, enhance the instruction of economics.

However, many instructors find it difficult to employ the tools and techniques highlighted above in their principles and other economics courses. A common

† Troy University – Troy, AL
‡ Columbus State University – Columbus, GA
* Jacksonville University – Jacksonville, FL

perception is that the time costs required to do so are prohibitive, meaning that entertaining these instructional tools and techniques results in a loss of coverage of those economics principles that are not being illuminated by movies, television, or other media. In this case, and given that these techniques arose in order to address media-savvy, yet perhaps attention-short, students of the 21st century, it is incumbent upon textbook authors and economic education scholars to provide more modern examples of the types of issues examined in principles of economics courses and beyond. The present note offers such a modern pedagogical vignette dealing with economic approaches to negative externalities.

2. Some Background

The history of economic thought surrounding human beings' dealings with externalities is one of the more interesting chapters in that particular field. The prominent branches of that thought that have emerged over the past 100 years are Pigouvian taxes (Pigou, 1932) and Coasian bargains (Coase, 1960 and 1988), and it is these two approaches, particularly the latter, that are typically included in classroom and textbook discussions of solutions to negative externalities in principles of economics courses. Table 1 provides a brief account of the coverage in several leading economics principles texts of both the Pigouvian and Coasian approaches to negative externalities.[1] Though most of these texts

[1] The textbooks included in Table 1 are Arnold (2011), Bade and Parkin (2011), Boyes and Melvin (2011), Case, Fair and Oster (2012), Colander (2010), Frank and Bernanke (2011), Mankiw (2012), McConnell, Brue and Flynn (2012), McEachern (2010), O'Sullivan, Sheffrin and Perez (2012), and Parkin (2012). Table 1 contains the numbers of the textbook chapters to which discussion of externalities are assigned, as well as the titles of those chapters.

cover the Pigouvian approach, almost half actually include his name (i.e., A.C. Pigou) in the process. Almost all of these texts include both the Coasian approach and reference to Ronald Coase in their discussions of negative externalities.[2]

Table 1 – Textbook Coverage of Pigouvian and Coasian Approaches to Externalities

Book	Chapter	Chapter Title	Pigou	Coase
Arnold	31	Market Failure: Externalities, Public Goods, and Asymmetric	x	x
Bade & Parkin	11	Information		x
Boyes & Melvin	27	Externalities and the Environment	x	x
Case, et al.	16	Market Failures, Government Failures, and Rent Seeking		x
Colander	21	Externalities, Public Goods, and Social Choice		
Frank &	9	Market Failure versus Government Failure	x	x
Bernanke	10	Externalities and Property Rights	x	x
Mankliw	17	Externalities		x
McEachern	5	Externalities and the Environment		x
McConnell, et al.	31	Market Failures: Public Goods and Externalities		x
O'Sullivan, et al.	17	External Costs and Environmental Policy	x	x
Parkin		Economics and the Environment		

Table 2 provides a list of the types of vignettes used by popular principles texts in explaining how the "Coase theorem" applies to negative externalities. Each text relies upon a hypothetical situation, with some using examples from the original texts on the subject. Specifically, the texts provide scenarios dealing with pollution generated by chemical and manufacturing firms, loss of farm crops due to neighboring cattle ranching, and economic and social activities that produce noise that disturbs people nearby these activities.

Table 2 – Textbook Vignettes of Coasian Approach to Negative Externalities

Hypothetical case of a cattle rancher whose cattle stray onto adjacent farm and eat and/or damage the farmer's crops.
Hypothetical case of a chemical company that dumps waste into a river, harming the people who live near the river and use it for fishing and boating.
Hypothetical case where Ralph mows his lawn before 8 a.m. on Sunday mornings, disturbing his neighbor Louis.
Hypothetical case of Harry, whose dorm room is next to Jake's. Harry plays noisy video games, thus disturbing Jake. Also, hypothetical case of a power company in Pittsburgh that emits pollution, harming the 100,000 nearby residents.
Hypothetical case of a factory that dumps toxins into a river, harming the people who fish the river.

[2] Examination of more advanced presentations might include Baumol and Oates (1988) and Cornes and Sandler (1996).

Hypothetical case of Dick, whose dog Spot barks, disturbing Dick's neighbor, Jane.
Hypothetical case of manufacturer of heavy machinery located next to research laboratory that tests delicate equipment – manufacturing process causes vibrations that disturb the lab's equipment.
Hypothetical case of beekeeper's bees providing pollination for nearby farmer's crops.
Hypothetical case of a steel mill that dumps wastes into a lake, harming a nearby fishing firm.
Hypothetical case of a chemical company that dumps waste into a river, harming the people who live near the river.

It seems reasonable to assume that the types of examples used by texts in examining Coasian bargains that address negative externalities are not the types of situations or stories that usually appeal to traditional college and university students. Thus, this note provides a more modern story for principles instructors to use as a supplement to traditional textbook accounts of the problems associated with externalities and the applicability of the Coase theorem.

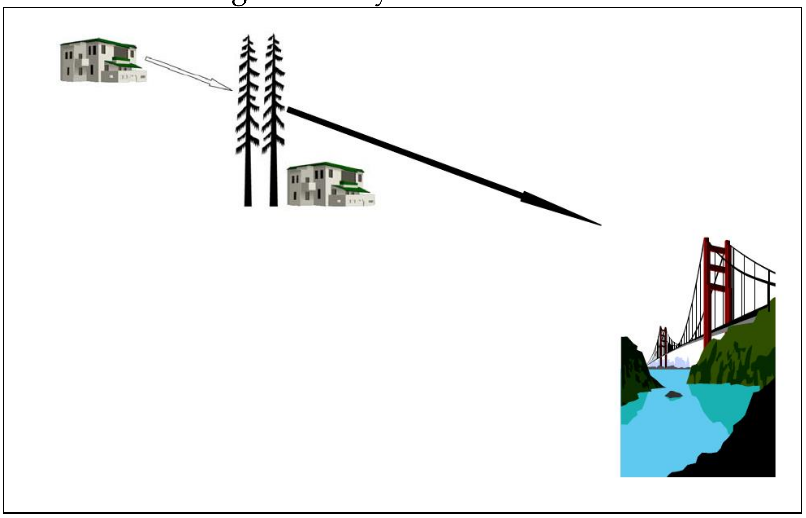
3. The Oracle CEO and the Redwood Trees: A New Coasian Case

Our story begins in July of 1988, when Oracle Corporation CEO Larry Ellison paid $3.9 million for a home in the Pacific Heights neighborhood of San Francisco – a property that provided Ellison with a prized view of San Francisco Bay below (Carleton, 2011).[3] However, later, in 2004, a $6.9 million home below Ellison's was purchased by Bernard and Jane von Bothmer. After taking ownership of the property below Ellison, the von Bothmers allowed three redwood trees and an acacia (located in their backyard) to grow by several feet (Carleton, 2011; Ferrato, 2011a). As depicted in Figure 1, the redwood and acacia growth came at the expense of Ellison's view: due to the taller trees, Ellison could

[3] Oracle Corporation is a computer technology company located in Redwood Shores, California. It was founded in 1977 by Ellison and two others. Oracle's fiscal 2011 revenues exceeded $35 billion. At the same time, Ellison's personal wealth was estimated at just under $40 billion, ranking him fifth worldwide.

no longer see San Francisco Bay from the third-story living room of his four-story home on the Bay (Carleton, 2011).

Figure 1 – Bay View Obscured



As Carleton (2011) points out, San Francisco's hilly terrain and prized vistas often generate such tree disputes – so many, in fact, that the City of San Francisco passed a *Tree Dispute Resolution Ordinance* in 1988 that requires complainants to (1) attempt to reconcile the dispute with the other homeowner(s), (2) file a "tree claim" in the event that (1) fails, and (3) submit the dispute to arbitration should both of the aforementioned remedies fail to resolve the issue.[4] If the resolution process fails altogether, the complainant can seek a formal remedy in the court. Ellison attempted to resolve the issue using steps (1)-(3) above during the years 2008 and 2009, but his attempts failed. At that point, Ellison sought a court-ordered remedy.

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[4] Interestingly, Ellison resolved a similar case involving redwoods that he planted at his Woodside, California, home. There a neighbor complained that Ellison's redwood trees blocked that neighbor's views, at which point Ellison removed the trees (Carleton, 2011).

Ellison filed suit against the von Bothmers in June of 2010, and the courts agreed to hear his case on June 6, 2011, in San Francisco's California Superior Court (Carleton, 2011). Before the case went to trial, though, Ellison attempted to resolve the dispute privately by offering the von Bothmers $27 million for their hillside home (Dalton, 2011). Though Ellison's offer was nearly four times the 2004 purchase price of the home, the von Bothmers rejected the offer.[5] Ellison did not give up easily, and he wanted the issue resolved (ideally in his favor) in advance of the 2013 America's Cup race, which was to be hosted by San Francisco (Coté, 2010).[6] After more back and forth, he and the von Bothmers ultimately reached an out-of-court settlement before the 2011 trial whereby the von Bothmers agreed to keep the height within two feet of the elevation of the second floor level of Ellison's home (Ferrato, 2011b; Staff, 2011; Hickman, 2011).

4. Pedagogical Take-Aways

The story of Larry Ellison's battle for a clear view of San Francisco Bay is a classic example of a property dispute that has the potential for settlement so long as *rights are*

[5] Carleton (2011) reports an early offer of $15 million, a figure that is still more than twice the purchase price. Ferrato (2011) indicates that the von Bothmers rejected "two offers" from Ellison. Thus, it is possible that both figures, $15 million and $27 million, were offered by Ellison for the von Bothmers' home. In another interesting twist to the story, reports (Ferrato, 2011a and 2011b) in the spring of 2011 indicated that Ellison was attempting to purchase the house next door to his, which was owned by the late San Francisco socialite Dodie Rosekrans. Rosekrans' home had an unobstructed view of the Bay, and Ellison was rumored to have offered $40 million for the property. That sale never occurred.

[6] As Coté (2010) indicates, San Francisco officials plan to raise $270 million to host the 2013 America's Cup race in San Francisco Bay. Ellison's own racing team, BMW Oracle Racing, is the current Cup holder, and is now creating an "event authority" management group to administer much of the 2013 race.

established. Law and economics scholars and teachers will recognize the similarities between the Ellison story and a number of legal cases, such as the conflict over competing uses in Bryan v. Lefever, 1879 and Fontainebleau Hotel Corp. v. Forty-five Twenty-five, Inc., 1959.[7] All of the key features for a Coasian bargain to work itself out are present—the ownership rights are clearly defined, transaction costs and communication costs are fairly low, and there are well established markets in tree services and land. Many different outcomes could have emerged from this arrangement, but it is clear that the final outcome was the one where resources—particularly Ellison's uninhibited view of San Francisco Bay—flowed to the person who valued the good most highly.

In addition to being a more contemporary example of the Coase Theorem, and in addition to being an example that involves a major personality in the business world, the Ellison story also gives scholars an opportunity to talk about the "Invariance Hypothesis" and the role that endowments and wealth play when Coasian bargains are made. The Invariance Hypothesis states that if an unobstructed view is worth more to Ellison than the trees and land are worth to the Bothmers, the rights to the view will be purchased—either by paying for trees to be cut or by buying up the property—so long as Ellison has enough funds to entice the von Bothmers into allowing the transaction. If the trees are more valuable to the von Bothmers than the view is to Ellison, the trees will not be chopped (or land will not be sold), so long as the von Bothmers have sufficient funds. The key condition for the Invariance Hypothesis to hold, therefore, involves the

[7] See Barnes and Stout (1992) for a discussion of the case.

parties' relative willingness and ability to buy rights. A whole literature focuses on the issue of wealth effects, and it is clear that the initial assignment of rights does affect parties' relative wealth.[8] Since the assignment of a right to one party has wealth effects, the final outcome may, *contra* the Invariance Hypothesis, be affected by the *initial rights assignment*.

In terms of the Ellison case, wealth and initial endowments certainly seemed to play some role in the final outcome. Ellison's tremendous net worth and wealth made him fairly insensitive to the von Bothmers' unwillingness to sell, and it is difficult to imagine the von Bothmers being able to offer Ellison a sum of money sufficient to leave him content having an obstructed view of San Francisco Bay.

About the Authors

Scott Beaulier is the Adams-Bibby Chair of Free Enterprise and the Executive Director of the Manuel H. Johnson Center for Political Economy, both at Troy University. Professor Beaulier is the past winner of the Adam Smith Prize for Outstanding Undergraduate Work in Economics (Northern Michigan University, 2000), the Society for the Development of Austrian Economics' Don Lavoie Graduate Student Essay Contest (George Mason University, 2003), the Southern Economic Association Award for Outstanding Graduate Work at a Southern University (George Mason University, 2003), the William P. Snavely Award for Outstanding Achievement in Graduate Studies in Economics (George Mason University, 2004), the Israel M. Kirzner Award for Outstanding Dissertation in Austrian Economics (George Mason University, 2004) and the Professor of the Month Award (Mercer University, April 2005). Scott's research in economic

[8] Calabrisi (1970) is a good starting point for those interested in discussions of distributional effects.

education has appeared in the *Journal of Economic Education* and the *Journal of Economics and Economic Education Research*. Professor Beaulier is also the author of *The Making of an African Exception: How Botswana Escaped the African Tragedy (and How Other African Countries Could Do the Same)*, which was published by Edward Elgar Publishing in 2009. Scott's work outside of economic education has appeared in the *Journal of Sports Economics*, *Kyklos*, *Constitutional Political Economy*, and the *Eastern Economic Journal*, among others.

Franklin Mixon is a professor of economics and the Director of the Center for Economic Education at Columbus State University. Professor Mixon serves on the editorial board of the *Journal of Economics and Finance Education*, and he has authored teaching manuals and test banks for principles and intermediate economics textbooks. Franklin's research in economic education has appeared in the *Journal of Economic Education*, *International Review of Economics Education*, *Journal of Economics and Finance Education* and the *Journal of Economics and Economic Education Research*. Professor Mixon has also published studies ranking economics departments on the basis of economic education research. These have appeared in the *Southern Economic Journal* and *Bulletin of Economic Research*. While on the faculty at the University of Southern Mississippi, Franklin won the Business Advisory Council Distinguished Faculty Award (2001) and he was a university finalist for the Aubrey K. and Ella G. Lucas Endowment for Excellence in Teaching Award (2005). Franklin's research outside of economic education has appeared in the *Oxford Bulletin of Economics and Statistics*, *Journal of Money, Credit, and Banking*, *Journal of Applied Econometrics* and *Public Choice*, among others.

Richard Cebula holds the Billy J. Walker/Wells Fargo Endowed Chair in Finance at Jacksonville University. Professor Cebula is the Managing Editor of the *Journal of Economics and Finance Education*, which he also co-founded in 2002. Richard's research in economic education has appeared in *Journal of Economics and Finance Education*. Professor Cebula was recognized for his teaching excellence by the Southern Economic Association when he was a recipient

(Armstrong Atlantic State University, 2007) of the prestigious Kenneth G. Elzinga Distinguished Teaching Award. While on the faculty at Emory University, Richard received the Teacher of the Year Award on three occasions, and he is also a past winner of an NROTC Teaching Award (Armstrong Atlantic State University, 2007). Professor Cebula's research in areas apart from economic education has appeared in the *Quarterly Journal of Economics*, *Journal of the American Statistical Association*, *Land Economics*, *Industrial Relations*, *Industrial and Labor Relations Review*, and *Economic Inquiry*, among others.